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1: NM\_000163. Homo sapiens grow...[gi:4503992]

Links

LOCUS GHR 4414 bp mRNA linear PRI 05-NOV-2002  
DEFINITION Homo sapiens growth hormone receptor (GHR), mRNA.  
ACCESSION NM\_000163  
VERSION NM\_000163.1 GI:4503992  
KEYWORDS  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 4414)  
AUTHORS Leung,D.W., Spencer,S.A., Cachianes,G., Hammonds,R.G., Collins,C.,  
Henzel,W.J., Barnard,R., Waters,M.J. and Wood,W.I.  
TITLE Growth hormone receptor and serum binding protein: purification,  
cloning and expression  
JOURNAL Nature 330 (6148), 537-543 (1987)  
MEDLINE 88065896  
PUBMED 2825030  
REFERENCE 2 (bases 1 to 4414)  
AUTHORS Godowski,P.J., Leung,D.W., Meacham,L.R., Galgani,J.P., Hellmiss,R.,  
Keret,R., Rotwein,P.S., Parks,J.S., Laron,Z. and Wood,W.I.  
TITLE Characterization of the human growth hormone receptor gene and  
demonstration of a partial gene deletion in two patients with  
Laron-type dwarfism  
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 86 (20), 8083-8087 (1989)  
MEDLINE 90046742  
PUBMED 2813379  
REFERENCE 3 (bases 1 to 4414)  
AUTHORS Ayling,R.M., Ross,R., Towner,P., Von Laue,S., Finidori,J.,  
Moutoussamy,S., Buchanan,C.R., Clayton,P.E. and Norman,M.R.  
TITLE A dominant-negative mutation of the growth hormone receptor causes  
familial short stature  
JOURNAL Nat. Genet. 16 (1), 13-14 (1997)  
MEDLINE 97285114  
PUBMED 9140387  
REFERENCE 4 (bases 1 to 4414)  
AUTHORS Behncken,S.N., Rowlinson,S.W., Rowland,J.E., Conway-Campbell,B.L.,  
Monks,T.A. and Waters,M.J.  
TITLE Aspartate 171 is the major primate-specific determinant of human  
growth hormone. Engineering porcine growth hormone to activate the  
human receptor  
JOURNAL J. Biol. Chem. 272 (43), 27077-27083 (1997)  
MEDLINE 98001682  
PUBMED 9341147  
REFERENCE 5 (bases 1 to 4414)  
AUTHORS Pantel,J., Machinis,K., Sobrier,M.L., Duquesnoy,P., Goossens,M. and  
Amselem,S.  
TITLE Species-specific alternative splice mimicry at the growth hormone

receptor locus revealed by the lineage of retroelements during primate evolution

JOURNAL J. Biol. Chem. 275 (25), 18664-18669 (2000)

MEDLINE 20317053

PUBMED 10764769

COMMENT PROVISIONAL REFSEQ: This record has not yet been subject to final NCBI review. The reference sequence was derived from X06562.1.  
Summary: Biologically active growth hormone (MIM 139250) binds its transmembrane receptor (GHR), which dimerizes to activate an intracellular signal transduction pathway leading to synthesis and secretion of insulin-like growth factor I (IGF1; MIM 147440). In plasma, IGF1 binds to the soluble IGF1 receptor (IGF1R; MIM 147370). At target cells, this complex activates signal-transduction pathways that result in the mitogenic and anabolic responses that lead to growth.[supplied by OMIM].

FEATURES

Location/Qualifiers

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Revised: July 5, 2002.

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Dec 13 2002 14:41:17



# HyPhy Documentation: Amino Acid Translation Table: Rate distributions

*Note: This table is identical to PHYLIP's translation table.*

Character	Translation
A	Alanine (Ala)
C	Cysteine (Cys)
D	Aspartic Acid (Asp)
E	Glutamin Acid (Glu)
F	Phenylalanine (Phe)
G	Glycine (Gly)
H	Histidine (His)
I	Isoleucine (Ile)
K	Lysine (Lys)
L	Leucine (Leu)
M	Methionine (Met)
N	Asparagine (Asn)
P	Proline (Pro)
Q	Glutamine (Gln)
R	Arginine (Arg)
S	Serine (Ser)
T	Threonine (Thr)
V	Valine (Val)
W	Tryptophan (Trp)
Y	Tyrosine (Tyr)
B	D or N (Asn or Asp)
Z	E or Q (Gln or Glu)
X,?	Unknown amino acid (any of the 20)
-	Skipped or unknown (see <u>Deletions and Ambiguities</u> )
.	For sequential file formats is interpreted as '?'. For interleaved formats signals that '.' should be replaced with the character at the same position in the first sequence.

*HYPHY* provides means for defining custom alphabets and translations. In particular, *HYPHY* recognizes relevant NEXUS blocks. However one must be careful with custom alphabets since they require model redefinitions.

*Sergei L. Kosakovsky Pond and Spencer V. Muse.*

U			C			A			G		
U	UUU	Phe	UCU	Ser	UAU	Tyr	UGU	Cys			
	UUC	Phe	UCC	Ser	UAC	Tyr	UGC	Cys			
	UUA	Leu	UCA	Ser	UAA	End	UGA	End			
	UUG	Leu	UCG	Ser	UAG	End	UGG	Trp			
C	CUU	Leu	CCU	Pro	CAU	His	CGU	Arg			
	CUC	Leu	CCC	Pro	CAC	His	CGC	Arg			
	CUA	Leu	CCA	Pro	CAA	Gln	CGA	Arg			
	CUG	Leu	CCG	Pro	CAG	Gln	CGG	Arg			
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	GUG	Val	GCG	Ala	GAG	Glu	GGG	Gly			

